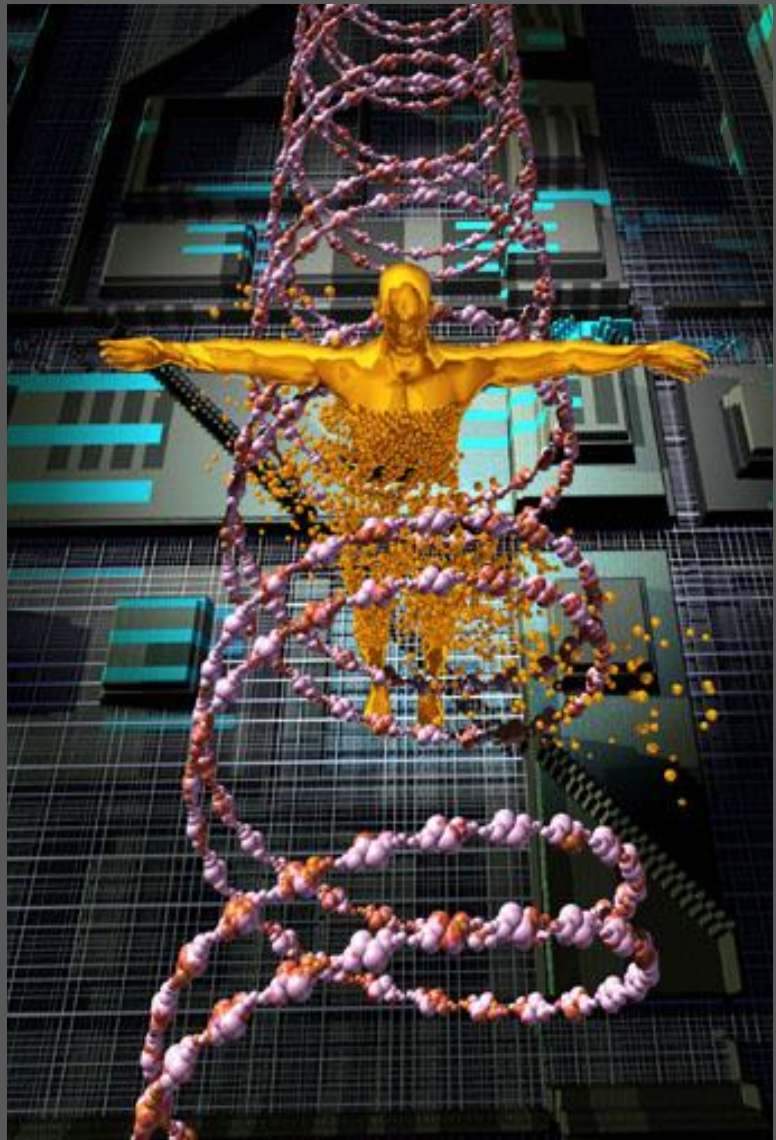


Integrating Connecticut's Health Information Technology: A White Paper

- Context & Purpose
- State of HIT in CT
- Recommendations
- Transition



Prepared by the
Health Technology Work Group of
the Connecticut Health Care Cabinet

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White Paper-Draft

Integrating Connecticut's Health Information Technology

I. Context and Purpose

This White Paper presents a rationale for and a recommendation to the Health Care Cabinet in support of a rational State Health Information Technology investment strategy. The paper reflects the deliberations of the Health Technology Work Group over the last nine months.

The Affordable Care Act (ACA) of 2010 and the State's Health Reform goals offer an unprecedented opportunity to refresh and reconstruct the infrastructure of Connecticut's health information technology (HIT). The window of opportunity to capitalize on the current unusually favorable terms is, however relatively brief. Because similar conditions are unlikely to present themselves in the foreseeable future, optimizing the state's human services HIT investments should be considered an urgent strategic priority.

Access to federal dollars would make it possible to make major capital investments and further position CT as a national leader in health technology- a strategy that aligns well with other major investments supported by this administration and the state legislature. Health reform allows the state to simultaneously revamp and render interoperable core components of the state human services information technology; to launch a Health Insurance Exchange (HIX) platform and to deploy a state-wide Health Information Exchange (HIE). This multi-pronged approach is in keeping with a vision of a vastly more efficient, effective, integrated, patient centered and equitable system.

Health reform is also driving substantial health information technology investments in the private sector. Physician practices, clinics, hospitals, pharmacies, laboratories and other key delivery system stakeholders are acquiring electronic health records and are developing the capability to exchange health information in a meaningful way. The combined impact of focused and strategic public and private investments in HIT help deliver improved health outcomes and lower operating costs as well as availing citizens of far greater convenience and flexibility to receive care anywhere in the state (and beyond) with assurances of privacy and access to relevant previous medical history.

II. Current Status of the State Health & Human Services IT

1. Health Information Technology in CT

Multiple efforts are currently underway to modernize the health and human services (CT-HHS) agencies' information systems. Some of these efforts, CONN-ADE, HITE-CT, Developing the CT HIT Workforce initiative, the Regional Extension Center (REC) and CHIN precede ACA while the Health Insurance Exchange (HIX), and the DSS Modernization Project (ConneCT), are more recent and have been driven by the national health reform agenda. These initiatives are critically important. Efforts by those organizations and many more are laudable but they are only loosely interconnected. Their separate funding sources and the specific tactical goals they seek to achieve drive their separate actions.

2. Coordination of the State's HIT Investments

Linking and coordinating all current state HIT efforts has been a priority voiced repeatedly by the Health Care Cabinet, the Office of Health Reform and Innovation, and multiple agency Commissioners. However, an assessment of the State's HIT coordination efforts by the Health Technology Work Group

reveals the absence of convening structure or a single, highly visible and well-resourced state-wide health information technology coordinator charged with integrating multiple disparate operations into a cohesive plan. Given the strategic importance of information technology and the magnitude of the investment, the HTWG believes that the current governance and management structures do not permit clear strategic accountability. We believe that strong leadership endorsed at the highest level of the administration and a supporting organization is needed to optimize resources, avoid duplication, needless delays or placement of disproportionate emphasis on some system components relative to others to the detriment of the whole.

III. Recommendations

The Health Technology Work Group (HTWG) considered options for optimizing current and future HIT investments. After extensive internal deliberations, consultation with expert organizations within and outside the state and the HIT literature we present a strong recommendation for the creation of a CT Office of Health Information Technology Coordinator and a supporting organization. Such a position should function outside any one state agency and in order to convey its key strategic importance should report directly to the Governor or the Lieutenant Governor.. Alongside the creation of the position, the CT Office of HIT Coordination the HTWG recommends a partnership with a state organization to provide a convening forum (HIT-Business Forum) that, on a regular basis will bring public and private sector HIT-Business stakeholders together to share ideas, exchange knowledge about emerging technologies and share best practices in support of the State's health reform goals and objectives.

1. CT Health and Human Services Enterprise Architecture Framework

The Health Technology Workgroup supports adoption of the National Association of State Chief Information Technology Framework for transforming Medicaid as an excellent road map for guiding the State's Health Information investments. The Framework, developed to support Medicaid has been adapted to more broadly guide the transformation and integration of all the State's health and human services agencies in the context of health reform.

We offer the following Mission Statement, Goals and Objectives for Office of the HIT Coordinator and supporting organization and recommend support by the Cabinet

Mission

"To establish a statewide framework for enabling technologies and processes that support improved program administration for the State's Health and Human Services (HHS) Enterprise and for stakeholders dedicated to improving health outcomes and administrative procedures for individuals receiving services through state health and human service agencies."

Goals

- Develop seamless and integrated systems that communicate effectively to achieve common HHS goals through interoperability and common standards
- Promote an environment that supports flexibility, adaptability and rapid response to changes in programs and technology
- Promote an enterprise view that supports enabling technologies that align with common HHS business process and technologies.
- Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration

- Provide performance measurements for accountability and planning
- Coordinate business strategies across the HHS Enterprise and provide IT support to enable their implementation.

Objectives

- Adopt industry standards for data exchange
- Promote reusable components through standard interfaces and modularity
- Promote efficient and effective data sharing to meet stakeholders needs
- Provide a beneficiary-centric focus
- Promote interoperability, integration and an open architecture
- Promote secure data exchange
- Promote good practices (e.g.: The Capability Mature Model and data warehouse)

The following is a high level description of the three architecture segments that, when combined, create the State HIT Coordinator Framework (Fig. 1).

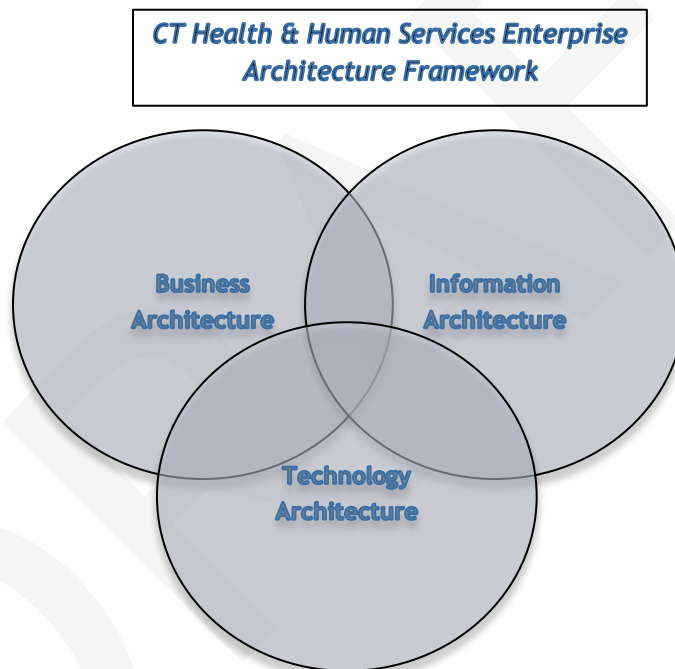


Figure 1

Business Architecture (BA)

Business architecture hosts a set of complexities that exist within the state government and are difficult to describe because of the numerous relationships and stakeholders involved. Major parts of Health and Human Services IT Business Architecture (HHSIB and the CT HIT Coordinator Framework, are business related and it is essential that these foundational components of the architecture framework have a clearly defined strategic intent.

Business architecture must start with an environmental context and provide the framework for improvements in the Health and Human Services enterprise operations. Improved outcomes for all stakeholders will come as a result of factoring in economic, legal, political, and citizen expectations.

Information Architecture (IA)

One of the key assets to the Health and Human Services enterprise is information. In order for HIT coordinator and other stakeholders to have the ability to quickly and accurately transfer information, the data must first be organized into usable formats. Information architecture seeks to address the informational needs of the enterprise and align with the business processes of the information systems associated with these programs. By providing a demonstrable, repeatable approach in aligning information assets, information architecture gives states a clear understanding of the enterprise's current and future needs. Because the BA and IA together map enterprise data and business processes, this provides the basis for sharing information throughout the enterprise as well as organizational boundaries. The IA also serves as the bridge between the BA and TA by providing the framework to go from the BA's information requirements to the TA's message requirements.

Technical Architecture (TA)

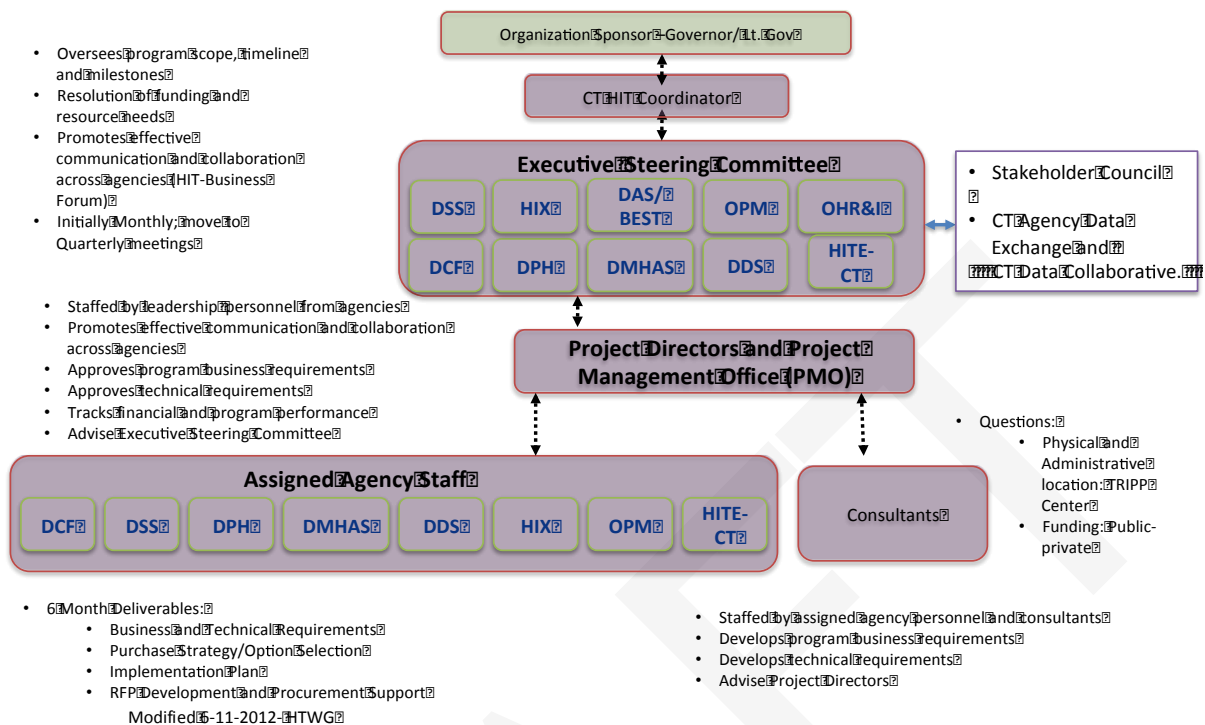
When considering the important factors of the technical architecture for the Health and Human Services enterprise, it is important to first remember that it will need to be a flexible, reliable, scalable, and secure system. By having increased flexibility it will allow technical architecture to conform to future requirements, like the increased eligibility and enrollment that will occur because of mandates set forth in the Affordable Care Act. Finding the right balance between technical agility and efficiency has always been challenging for states, but balancing these tools for success amongst stakeholders is imperative for success.

The technical architecture framework is designed to assist the State HIT Coordinator and other state leaders with a strategy and a roadmap for leveraging the latest advancements in technology from an enterprise perspective. The HIT-Business Forum will provide support for such exchanges. States should consider the benefits of standards-based approach to building a Medicaid enterprise that facilitates the reuse of solutions and integrates Commercial Off-the-Shelf (COTS) products to reduce development and IT costs to the states and CMS.

2. Governance and Management Structure

A governance structure should include an Executive Steering Committee made up of Commissioners of the Health and Human Services Cabinet (DCF, DDS, DMHAS, DPH, DSS, DOC), the State's CIO, Director of IT Policy, Health Information Exchange CEO, and the Health Insurance Exchange CEO, chaired by the State HIT Coordinator. This Executive Committee would have the responsibility of developing an enterprise HIT strategic plan that defines the scope of enterprise HIT Integration effort, oversee its implementation timeline and milestones, resolve funding issues and promote effective communication and collaboration among all stakeholders. A Stakeholder Council representing hospitals, ancillary support services (i.e.: community action agencies) researchers, and other health providers should be formed to provide a core participation group in the HIT-Business Forum.

Enterprise Management System Governance Structure



The State HIT Coordinator and the Executive Steering Committee should, in short order, publish its Mission statement, goals and objectives and prepare and a comprehensive work plan. To maximize the benefits of federal matching dollars we envision a phased but aggressive HIT modernization plan for 2013-2018 responsive to short-term imperatives but keenly attentive to a long-term vision for an integrated, interoperable and equitable system. Short term enterprise priorities include the launching of the state's Health Insurance Exchange (HIX) by 2014, the deployment of a robust Health Information Exchange platform, upgrading the eligibility system with a single health and human service eligibility entry point, development of a Master Patient Index, a Unique Provider Identifier, development and testing of inter-agency data sharing protocols, integration of programmatic rules and strengthening of privacy and security. Long-term priorities include furthering system interoperability, elimination of disparities in access to information technology, lowering operational and maintenance costs, transition to a performance-based reimbursement system and overall enhancement of consumer service. Additional services should include shared analytics, business intelligence capabilities, case management, and population based public health information supported by shared service architecture.

The State HIT Coordinator will bring together a number of loosely connected HIT-related committees and other *ad hoc* working groups under one organization. In the public sector the three principal groups are the HIX, HITE-CT and CONN-ADE. The critical contribution of a coordinating entity is to optimize opportunities for cross-agency collaboration through interoperable IT systems and harmonized shared services protocols.

a. The Health Insurance Exchange (HIX)

The HIX is responsible for determining eligibility for different health insurance programs available to the public through the exchange including those subsidized by the State.

b. Health Information Exchange (HIE)

Deployment of a robust state-wide Health Information Exchange system to attain substantial and measurable improvements in patient access to health care and medical records, continuity and coordination of care, health outcomes and patient experience, effectiveness and efficiency of care delivery and public health outcomes.

The HIE must fully support the transition to a performance-based reimbursement system. Adequate funding and a robust business plan (sustainability plan) are imperative to support ongoing operations and system enhancements.

c. Inter-agency integration (CONN-ADE, CT. Data Collaborative, others)

State inter-agency integration efforts must support the short term tactical requirements of the HIX and it must leverage the capabilities of the state-wide HIE. More importantly, inter-agency integration efforts must be viewed as a long-term strategic investment to lower costs and improve customer service.

- i. *Connecticut Agency Data Exchange (CONN-ADE)* With funding provided by the Medicaid Infrastructure Grant (MIG) and the Mental Health System Transformation Grant, structured to implement a solution to improve the ability of state human service agencies to share data on a case management and at a policy level.
- ii. *The Connecticut Data Collaborative*, established in 2009 is a collaborative public-private effort to improve the quality of and access to policy-related data in the state. The Connecticut Data Collaborative is a project of the New Connecticut Foundation, a 501(c)3 nonprofit organization affiliated with the The Connecticut Data Collaborative is a project of the New Connecticut Foundation, a 501(c)3 nonprofit organization affiliated with the Connecticut Economic Resource Center
- iii. *Others (TBD)*

3. Opportunities for Federal Funding

The Centers for Medicaid and Medicare Services (CMS) has made funding available for states to replace eligibility systems. For a limited time, the systems put into operation through the use of these funds can be used by the states in other areas without a cost allocation to the other areas for the development of the system. Non-Medicaid programs must bear the costs of bringing program specific rules into the application.

In addition to the major technological changes made to the Medicaid Information Technology Architecture (MITA), this is also an unprecedented time for funding in the states and in order to receive initial and ongoing approval for enhanced funding, states must meet the seven conditions and standards that CMS issued during April of 2011.

The seven conditions and standards that must be met to receive federal funding are:

- 1. Modularity Standard - use of a modular, flexible approach to systems development.
- 2. MITA Condition - requires states to align with, and advance increasingly in, MITA maturity for business, architecture, and data.
- 3. Industry Standards Condition - ensures States alignment with, and incorporation of, industry standards.
- 4. Leverage Condition - promotes solution sharing, leverage, and reuse of Medicaid technologies and systems within and among states.
- 5. Business Results Condition - Supports accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public.
- 6. Reporting Condition - requires states to produce transaction data, reports, and performance information
- 7. Interoperability Condition - ensures seamless coordination and integration

with the Exchange (whether run by the state or federal government), and allows interoperability.

4. Convening Forum: Private-Public Collaboration

As a state institution functioning independently of the health and human services agencies, the University of CT is in a good position to develop and support the HIT-Business Forum. The initiative will require public and private funding which the University may be in the position to seek and secure. For example, existing entities such as the Ethel Donaghue “Translating Research into Practice and Policy” (TRIPP Center) within the University of CT have the necessary experience and capability to provide support for this important function.

IV. Transition

The HTWG will support a timely transition from its current role and *modus operandi* to a designated State Office of HIT Coordination. Given the urgency and the importance of the re-organization the transition should begin immediately and be completed by December of 2012.